

SEATTLE FACETOR DESIGN

APRIL 1978

In January 1978 when we presented 2.038 SUPERNOVA SHM we promised to give information on some of the other possible shapes adaptable to the basic design. In this issue five more "SUPERNOVA"s are presented because we believe this is one of the most useful oval designs. All have been calculated by ROBERT H LONG using his master program on a TI-59 (and verified by me on my TI-59 and a HP-97 as well as graphically while making the drawings for the INDEX TO FACET DESIGNS)

A faceted stone inventory is much more valuable if the stones are shaped so they can be fitted into commercial mountings. Since the advent of the programmable calculator and improved precision in faceting machines it has become entirely practicable to have facet designs which yield exact standard size stones every time. A close look at the following table should suggest why the particular proportions were selected for the stones presented here.

Length/Width Ratio	STANDARD MILLIMETER SIZE				
2.750	20 x 15				
2.400	24 x 10				
2.000	18 x 9				
1.778	16 x 9				
1.714	24 x 14				
1.667	20 x 12	25 x 15			
<u>1/</u> 1.500	3 x 2				
<u>2/</u> 1.400	7 x 5	14 x 10			
1.389	25 x 18				
<u>3/</u> 1.333	4 x 3	8 x 6	16 x 12	20 x 15	
1.316	25 x 19				
<u>4/</u> 1.286	9 x 7				
1.250	5 x 4	10 x 8	30 x 24		
1.222	11 x 9				
<u>5/</u> 1.200	12 x 10				
1.143	16 x 14				
<u>6/</u> 1.167	14 x 12				

- Notes: 1/ See design 2.038 (January 1978)
2/ See design 2.041 (April 1978)
3/ See design 2.046 (April 1978)
4/ See design 2.047 (April 1978)
5/ See design 2.043 (April 1978)
6/ See design 2.042 (April 1978)

Within limits any true ellipse proportion can be adapted to SUPERNOVA SHM, by changing elevation angles and bearings. This can be readily accomplished thru the calculation techniques we now have available, however unless you intend to cut extremely valuable material the reduction in value from a "non standard" size will nullify the gain from a small amount of material saved.